UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

September 5, 2002

01-AFC-17

CALIF ENERGY COMMISSION

SEP 12 2002

RECEIVED IN DOCKETS

Ms. Pang Mueller
Senior Manager
South Coast Air Quality Management District
21865 East Copley Drive
Diamond Bar, CA 91765

Re: Inland Empire Energy Center

Dear Ms. Mueller:

Please find enclosed our comments on your Preliminary Determination of Compliance (PDOC) for the Inland Empire Energy Center (IEEC). EPA appreciates the opportunity to comment on the PDOC for this project, particularly because there are several deficiencies that must be corrected prior to final permit issuance, including: (1) your BACT/LAER analysis for NO_x, CO, and ROG; (2) exempting the cooling tower PM_{10} emissions from permitting review; (3) authorizing the use of invalid PM_{10} and ROG offsets, and (4) failing to require installation and operation of the NO_x Continuous Emission Monitoring System (CEMS) upon initial operation. In addition, we recommend correcting PDOC provisions referring to improper source testing frequency and methodology and failing to require a rolling averaging period for CO monitoring. These permit deficiencies are explained in detail in the enclosed comments.

We appreciate the District's cooperation and look forward to working with you and your staff to correct the permit deficiencies prior to the issuance of the final determination of compliance. Please have your staff contact Curt Taipale at (415) 972-3966 in our Permits Office if you need further discussion on any of our comments.

Sincerely,

Gerardo C. Rios FOR
Chief, Permits Office

enclosures

cc: Mike Tollstrup, CARB
Jim Bartridge, CEC
Mike Hatfield, Inland Empire Energy Center
Don Codding, National Park Service

EPA Comments on Preliminary Determination of Compliance (PDOC) for Inland Empire Energy Center (IEEC)

1. EPA LAER/California BACT Evaluation:

We have informed your staff that the PDOC must be revised to satisfy EPA LAER and California BACT requirements for Nitrogen Oxides (NO_x), Carbon Monoxide (CO), and Reactive Organic Gases (ROG).

NO_X: The PDOC contains a LAER/BACT limit of 2.5 ppm NO_x over one hour, but must be revised to require a limit of **2.0 ppm NO_x** over a one hour averaging time. Where as here, a technology may achieve a range of control efficiencies, EPA's NSR Manual (Draft 1990), at B.23, states that "the applicant should use the most recent regulatory decisions and performance data for identifying the emissions performance level(s) to be evaluated in all cases." The Manual, at B. 24, concludes: "In the absence of a showing of differences between the proposed source and previously permitted sources achieving the lower emissions limits, the permitting agency should conclude that the lower emissions limit is representative for that control alternative." Several recently permitted California power plants, which are similar if not identical in all material respects to the IEEC facility, are required to meet a LAER/BACT emission rate of 2.0 ppm NO_x over a one hour average. These permits include the Sunrise Power Project (NSR Permit-SJVUAPCD, PSD Permit-EPA), the San Joaquin Valley Energy Center (FDOC) and the Avenal Energy Power Plant Project (FDOC) permitted by San Joaquin Valley Unified Air Pollution Control District; the East Altamont Energy Center (FDOC) and Tesla Power Project (PDOC) permitted by the Bay Area Air Quality Management District. Additionally, the ANP Blackstone units #1 and #2 in Massachusetts were permitted and since 2001 have been operating at a LAER rate of 2.0 ppm NO_x over one hour (excluding start-up and shut-down). Therefore, regulatory decisions and available performance data demonstrate that the LAER/BACT rate for IEEC is presumptively 2.0 ppm NO_x over one hour. Your engineering analysis does not explain any ways in which the IEEC units differ from the numerous units that have been permitted and are operating at a LAER/BACT emission rate of 2.0 ppm NO_x averaged over one hour. Please revise the PDOC to require IEEC to meet the LAER/BACT limit of 2.0 ppm NO_x over one hour.

CO: The CO BACT determination must be revised to an emission rate of 4.0 ppm or lower. The power plants described above have been permitted, and in some cases are already operating, at a LAER/BACT CO rate of 4.0 ppm or lower. Therefore, please lower the CO limit in the proposed PDOC.

ROG: You must also either revise the ROG limit of 2.0 ppm, or provide additional information supporting a rate exceeding 1.4 ppm ROG and increase the ROG offset requirement to match the enforceable LAER/BACT emission rate. A ROG limit of 2.0 ppm is not supported by your analysis for two reasons. First, the manufacturer of the oxidation catalyst has specified 1.4 ppm ROG (with duct firing @100% capacity). EPA's NSR Manual at B.20 states that "Vendor guarantees may provide an indication of commercial availability and the technical feasibility of control techniques could contribute to a determination of technical feasibility or technical infeasibility, depending on circumstances." Your analysis of LAER/BACT for ROG does not demonstrate why the limit established by the vendor guarantee (1.4 ppm ROG) is not achievable for this source. Second, your offset calculations in Appendix C demonstrate that the

applicant will only provide offsets for an emission rate of 1.4 ppm ROG (see p. 66 of evaluation). The PDOC must be revised to contain a practically enforceable LAER/BACT emission limit of 1.4 ppm ROG. Alternatively your analysis must demonstrate why the rate is not achievable by this source and you must revise the offset calculation to be consistent with any higher emission rate.

2. Cooling Towers Exemption:

The PDOC impermissibly exempts the cooling towers from NSR requirements, including both LAER/BACT and NSR offsets for the significant PM_{10} emissions. Your staff based the decision to exempt the cooling tower emissions from permitting on Rule 219(d)(3). We disagree with your conclusion that Rule 219(d)(3) exempts power plant cooling tower emissions from permitting requirements for the following reasons. Rule 219(d) exempts "General Utility Equipment" such as comfort air conditioning, refrigeration units and space heaters from NSR permitting. The exemption relates to small units which could not emit significant pollutants and are typically spread among numerous non-industrial users. The specific wording of Rule 219(d)(3) exempts "water cooling towers . . . **not used for evaporative cooling** of process water . . . ." The water cooling towers that will be constructed and operated at IEEC are, in contrast, large industrial units with significant PM_{10} emissions, which are used for evaporative cooling. Although the process water from the thermal system is not directly circulated in the cooling towers, the evaporative cooling of non-process water in the cooling tower ultimately serves to cool the process water. Therefore, the plain language of the exemption in Rule 219(d)(3), as well as its overall intent to apply to small, ubiquitous sources, is inconsistent with exempting the IEEC cooling towers from NSR permitting requirements. Finally and more importantly, any interpretation of Rule 219(d)(3) that would allow the District to exempt a major source of PM_{10} from the requirements of NSR would violate the federal Clean Air Act requirements which apply to all major sources of air pollutants.

The California Energy Commission's (CEC) Preliminary Staff Assessment for IEEC dated July 19, 2002, estimates that the 14 cooling towers together will emit 79 lbs/day or 14.4 tons per year of PM_{10}, assuming 365 days of operation. This estimate of emissions could be understated because the concentration of total dissolved solids (TDS) and undissolved solids in the circulation water can vary greatly depending on evaporation rates, the amount of make-up water and the frequency of water treatment. Therefore, to maintain the CEC Preliminary Staff Assessment's estimated emissions (14.4 tons per year) will require additional permit conditions specifying the cooling tower emission limit (based on acceptable range for TDS in the circulating water) and periodic sampling program to ensure that the TDS levels remain within assumed parameters (see CEC Assessment at AQ-C12 and AQ C-13).

In summary, your PDOC analysis must be revised to include NSR requirements, including LAER and offsets for the PM_{10} emissions from the cooling towers.

3. PM_{10} Emission Reduction Credits For Cooling Tower Emissions From Road Paving:

We understand that even though the District has determined that the PM_{10} emissions from the cooling tower are not subject to permitting, the PDOC requires IEEC to offset those emissions as mitigation under CEQA. Apparently, IEEC has proposed, and the PDOC has

incorporated, a plan to pave local gravel roads for the CEQA mitigation.

As the credits are currently treated, EPA would not allow such road paving credits to offset PM_{10} obligations arising under NSR permitting. The road paving credits discussed in the PDOC do not meet the fundamental requirements for NSR offsets of being surplus, quantifiable, permanent, and federally enforceable. Surplus means an emission reduction that is not otherwise required by the Clean Air Act including but not limited to RACT, MACT, or an emissions reduction that is relied upon in an applicable State Implementation Plan or transportation conformity. The SIP must also contain an approved protocol for quantifying such credits. Finally, offsets used for NSR requirements must be permanent and federally enforceable. The PM_{10} credits in the IEEC PDOC fail all of these tests.

4. ROG Emission Reduction Credit:

The PDOC requires IEEC to provide NSR offsets for its ROG emissions, and the amount required will be determined based on the enforceable LAER/BACT rate (1.4 ppm v. 2.0 ppm) in the final permit (see comment 1 above). The ROG credits which the PDOC proposes to accept for at least part of the final amount are invalid. The credits memorialized in ERC Certificate No. AQ003069, were claimed to have been created by Dext Company, Scope Products, Inc. on about February 23, 1990. SCAQMD denied the ERC application, but Scope Products appealed the denial to SCAQMD's Hearing Board, which apparently overturned the denial. After the Hearing Board ordered SCAQMD to issue credits in the amount of 2,670 pounds per day (lbs/day) of hydrocarbons as methane, and 122 lbs/day of particulate matter, ARB and EPA both issued letters objecting to the validity of the claimed credits. In February 1993, EPA informed the District the credits were invalid because: (1) the reductions were banked prior to the November 1990 Clean Air Act Amendments; (2) because quantification of the credits was not supported by actual operating data; (3) the credits were not surplus to other legally required reductions (including BACT); and (4) the District failed to include enforceable permit limits following the modification that purportedly created the credits. (A copy of our letter is included). CARB had also objected to the validity of the credits in December 1992, finding that the emissions reductions were not surplus to other legal requirements and operating data did not support the quantification. (A copy of CARB's letter is also included). Thus, the credits claimed in this Certificate do not meet federal and SIP requirements to be surplus, quantifiable and federally enforceable. The credits cannot be used as NSR offsets for either ROG or PM_{10}.

5. NO_x CEMS installation deadline:

The PDOC condition D82.2 allows up to 12 months from the initial start-up date for IEEC to install and operate the NO_x CEMS device for the combustion turbines and the duct burners serving the heat recovery steam generators. The condition must be revised to require operation of the NO_x CEMS upon initial operation. There are many reasons for this requirement. The NO_x CEMS is the method for enforcing the requirement for IEEC to meet a specific LAER/BACT rate. In addition, the IEEC facility is subject to the requirements of 40 CFR Part 75 (Acid Rain Program), which requires CEMS monitoring upon initial operation. For other recently issued permits, EPA has endorsed the following condition:

1. *Prior to the date of startup and thereafter, the Permittee must install, maintain and*

operate the following continuous monitoring systems (CEMS) in the CTG exhaust stacks:

a. *A continuous monitoring system to measure stack gas NOx and percent O_2. The system shall meet EPA monitoring performance specifications (40 CFR 60, Appendix B). The NO_X monitoring system (NO_X adjusted to 15% O_2) must also meet the 10% relative accuracy requirement of 40 CFR 75 Appendix A 3.3.2.*

See FDOCs for Blythe Energy Project and High Desert Power Project. For the 129 MMBtu/hr auxiliary boiler, EPA is willing to allow the NO_x CEMS to be installed and operating no later than 90 days after initial startup of the auxiliary boiler.

6. Source Testing Frequency and Methods:

The proposed permit appears to require PM_{10} and ROG testing only once every three years. Testing every three years will not ensure compliance with the LAER/BACT emission limits and would not allow the District to adequately enforce the emission rates that it used to determine the NSR offset obligations, especially since the source is proposing to offset PM_{10} emissions at levels less than manufacturer guarantees that we have seen for prior projects. We recommend revising the permit to require annual source testing for ROG and PM_{10}. In addition, the permit must specify EPA and District approved test methods for ROG (such as SC 25.3) and PM_{10} (such as SC 5.1).

7. Averaging Period:

Permit condition A195.2 establishes the CO emission limit, but fails to specify that the averaging period is a rolling average. We suggest the permit condition should be revised to the following:

"... CO emission limit(s) are averaged over a rolling 3 hours at 15% oxygen, dry basis."

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, Ca. 94105-3901

FEB 11 1993

Don Hopps
South Coast AQMD
21865 E. Copley Drive
Diamond Bar, CA 91765-4182

Dear Mr. Hopps:

EPA appreciates the opportunity to comment on the District's proposal to issue Emission Reduction Credits (ERCs) to Dext Company, Scope Products as granted pursuant to the decision of the Hearing Board in case number 2876-6 for 2670 lbs/day VOC and 122 lbs/day particulate matter.

We are concerned that the District may be forced to issue ERCs which the applicant has not demonstrated as surplus, quantifiable, and permanent; EPA recommends that the District not grant these emission reductions until they meet the above criteria.

EPA will continue to analyze these ERCs and additional comments may follow. Our preliminary comments are enclosed. Please provide us with a copy of your final decision along with responses to all EPA and public comments. If you have any questions regarding these comments, please contact Gerardo C. Rios of our New Source Section at (415) 744-1257.

Sincerely,

Matt Haber,
Chief, New Source Section
Air and Toxics Division

Enclosures

cc: Ray Menebroker, CARB
Allen Mednick, SCAQMD

EPA Comments
Dext Company, Scope Products, Inc.
Hearing Board Case #2876-6

1. EPA would like to remind District to the way in which the Title I General Preamble states emission reduction credits approved prior to the adoption of the Clean Air Act Amendments on November 15, 1990 must be treated.

   In general, because a new baseline year has been established for all attainment demonstrations, any emission reductions that were functionally banked prior to November 15, 1990 must be treated as growth within the nonattainment area. The rationale is that these banked emissions will be part of future emissions within the air quality region. Therefore, the planning agency must demonstrate that these banked emissions will not hinder the reduction in emissions which the new SIP must achieve. These banked emissions must also meet the requirements of the Federal Emissions Trading Policy Statement as well as the CAA prescribed offset ratios when used as offsets for major stationary sources.

   EPA will disallow the use of pre-enactment ERCs if they are not included in the attainment demonstration as growth; allowing the use of ERCs not accounted for in the attainment demonstration would be double counting. Thus, when EPA reviews proposed projects that use ERCs, we will be searching for a demonstration that verifies how these ERCs are accounted for in the plan and shows that they are surplus. If an adequate demonstration is not made, EPA will have to recommend that the permit for such a project not be issued since it does not meet the requirements of §172 of the CAA.

2. EPA concurs with the District's original decision to deny the ERCs. In order to determine the amount of ERCs that may be granted to an applicant, the applicant must establish an actual emissions baseline based on actual operating data from the two years prior to the modification. The data may include, but is not limited to, temperature, throughput, fuel use, and actual operating hours. According to the information submitted to EPA and conversations with District staff, it appears that the applicant did not submit to the District all the necessary operating data to determine the actual emissions baseline from the original equipment. Although the applicant submitted test results from source tests performed on the new dryer, the applicant did not submit information to demonstrate that the new dryer was not substantially different than the old dryer. The District denied granting ERCs to Dext Company for the dryer modification because it did not establish a proper baseline as required by the Federal Emissions Trading Policy

Statement (ETPS FR 43814, Dec. 4, 1986) and the Code of Federal Regulations (40 CFR 51.165).

The following are some of the outstanding issues that are essential in determining the actual emissions from the source:

a) According to the testimony from the Phase I and Phase II hearings, the applicant did not clearly establish that the operating temperature was changed significantly. The applicant claims to have operated the original dryer at 250 to 300° F. However, as the board concluded in their Findings of Fact - Phase II, conclusion number five, "the direct evidence presented was insufficient to prove that Dryer #1 operated at 250° F." Establishing the baseline temperature is paramount for this source since it is one of the operating parameters indicative of the of the rate of evaporation for the system.

b) The District Board appears to have granted ERCs to the applicant as if it had operated 24 hours a day. However, the applicant only operated its facility sixteen hours a day. Thus, the baseline has been skewed by this calculation error.

EPA recommends that the District require the applicant to establish the baseline and correctly quantify the emission reductions prior to granting any ERCs. If establishing the baseline is not possible, then EPA recommends that the District not grant any ERCs.

3. The emission reductions were not demonstrated to be surplus. District Rule 1309 requires that any ERCs granted are not greater than the emission reductions the equipment would have achieved if operating with best available control technology (BACT). Thus, in order to determine the amount of ERCs that should be awarded to the applicant, the District must subtract any emission reductions that would have been achieved by BACT. Any emission reductions achieved after BACT, may be eligible for granting as ERCs.

In light of comments 1., 2., and 3. , EPA recommends that the District not issue these ERCs since a clear demonstration that the emission reductions are surplus was not made by the permit applicant.

4. EPA is concerned that District has not limited the throughput for this facility after the modification. EPA believes that the new dryer is capable of operating at a rate of 30 ton/hr of material while the old dryer could only operate at 80 ton/day (3.3 ton/hr). It is possible that the new dryer could operate at a high enough rate to emit an equal, if not greater, amount of VOCs as the old dryer. EPA

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
MEMORANDUM

Date: January 7, 1993

To: Allen D. Mednick, Senior Deputy Procecutor

From: Larry M. Bowen, Senior Manager LMB

Subject: Dext Company, Scope Products Inc. dba (ID# 020203)
ERC Application 148704

The ARB has responded to the ERC evaluation summary, as on the attached two page document. The ERC evaluation summary was sent to them and the EPA, at the same time the public notice was sent. Mr. Hawrylew also gave you a copy of this summary at that time. Based on the ARB's response and your previous verbal advice, we are suspending any further action on this application until you provide additional guidance, based on the pending appeal proceedings.

cc: Richard H. Hawrylew, A.Q. Engineer II

D5-DXTERCM0

STATE OF CALIFORNIA
AIR RESOURCES BOARD
2020 L STREET
P.O. BOX 2815
SACRAMENTO, CA 95812

PETE WILSON, Governor

Rec'd
1/4/93
RHA

December 22, 1992

Mr. Larry M. Bowen
Senior Manager
South Coast Air Quality
Management District
21865 E. Copley Drive
Diamond Bar, CA 91765-4182

Dear Mr. Bowen:

I am writing in response to your November 16, 1992, public notice concerning the granting of Emission Reduction Credits (ERCs) for Dext Company, Scope Products, Inc. The ERCs granted pursuant to the decision of the Hearing Board in case number 2876-6 are for 2670 lbs/day hydrocarbon and 122 lbs/day particulate matter. The ERCs will be granted by the South Coast Air Quality Management District (District) to Scope's bakery scrap processing facility located at 9112 Graham Avenue, Los Angeles. These reductions are purportedly the result of the installation of a replacement dryer equipped with an afterburner. We have reviewed the proposed action and, based upon our calculations and state law and District rules regarding the creation of ERCs, have determined that the ERCs should not be granted.

First, in order for these reductions to be eligible for ERCs they must be in excess of those needed to comply with adopted federal, state, or district rules, regulations, or statutes (Health and Safety Code section 40709 and District Rule 1309.b.2.C). The ERC evaluation provided to us by the District states that evidence exists to indicate that these reductions were needed to achieve compliance with District Rules 401 and 402. It appears that the issue of the extent to which the new equipment was necessary to achieve compliance with these rules was never fully aired before the Hearing Board. Under the circumstances, we are not persuaded that the emission reductions are surplus. Therefore, we do not believe these reductions are eligible as ERCs.

Second, assuming it can be demonstrated in some type of additional proceeding that these reductions are in excess of those required by Rules 401 and 402, the reductions must also be quantifiable to be eligible for ERCs. The evaluation indicates a lack of actual historic production data necessary to quantify an emission baseline. It appears that the results of a single source test alone were used to establish the baseline, assuming the source test emission rate occurred 24 hours a day, every day. We do not believe this is a valid assumption to make when quantifying emission reductions. Because source test results indicate emissions associated with a particular process rate, source test results must be used together with actual historical production data when quantifying actual historical emissions. We do not believe the District has demonstrated that the emission reductions proposed for credit are quantifiable.

District Rule 1309 requires that the stationary source reductions proposed for ERCs are not greater than the equipment would have received if operating with the best available control technology (BACT). That is, existing equipment

which is not operating with BACT cannot get credit for reductions in emissions necessary to reach BACT, but only for reductions which go "beyond BACT". This required BACT adjustment has not been addressed in the evaluation of this proposal and, in all likelihood, would substantially reduce the ERCs available.

Based on our review of the evaluation of these reductions, we believe the granting of these ERCs is contrary to the requirements of state law and district rules and regulations. Therefore, we request that the ERCs not be granted until the hearing board rehears the matter or until further proceedings are undertaken where these issues are considered. We would be happy to participate in a technical capacity in any such proceedings and would appreciate being kept informed of the status of this matter. Thank you for the opportunity to review and comment on the proposed ERC action. If you have any questions, or if we can be of further assistance, please call Beverly Werner, Manager, New Source Analysis Section, at (916) 322-3984.

Sincerely,

for Raymond E. Menebroker, Chief
Project Assessment Branch

cc: Michael Kenny